



IQ7A Microinverter

The high-powered smart grid-ready IQ7A Microinverter dramatically simplifies the installation process while achieving the highest system efficiency for systems with 60-cell, 66-cell, and 72-cell PV modules.

Part of the Enphase IQ System, the IQ7A Microinverter integrates with the IQ Gateway Metered, IQ Battery, and the Enphase App monitoring and analysis software.

The IQ Series Microinverters extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing, enabling Enphase to provide an industry-leading warranty.



IQ Gateway

Part of the Enphase Energy System, IQ7 Series Microinverters integrate with the IQ Battery, IQ Gateway, and the Enphase App monitoring and analysis software.



IQ Cabling

Install microinverters quickly and safely with IQ Cabling. With multi-phase IQ Cabling, the installed capacity is automatically distributed evenly across all three phases.



Q-DCC-2 adapter cable

Connect PV modules quickly and easily to IQ7 Series Microinverters using the included Q-DCC-2 adapter cable with plug-and-play MC4 connectors.



IQ7 Series Microinverters redefine reliability standards with more than one million cumulative hours of power-on testing, enabling an industry-leading limited warranty of up to 10 years.

High power

- Peak output power is 366 VA

Easy to install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant

Efficient and reliable

- Optimized for high-powered 60-cell, 66-cell, and 72-cell PV modules
- Highest EU efficiency of 96.5%
- More than a million hours of testing
- Class II double-insulated IP67 enclosure

Smart grid-ready

- Complies with advanced grid support, voltage, and frequency ride-through requirements
- IQ Gateway and internet connection are required
- Configurable for varying grid profiles

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DATASHEET

INPUT (DC)		IQ7A-72-2-INT
Commonly used module pairings ¹		295 W–460 W
Module compatibility		60-cell, 66-cell, and 72-cell PV modules
Maximum input DC voltage		58 V
PV input operating voltage range ²		18 V–58 V
Minimum/Maximum start voltage		33 V/58 V
Max DC short circuit current (module Isc) ³		15 A
Overvoltage class DC port		II
DC port backfeed current		0 A
OUTPUT (AC)		
Peak output power		366 VA
Maximum continuous output power		349 VA
Nominal (L-N) voltage/range ⁴		230 V/219–264 V
Maximum continuous output current		1.52 A
Nominal frequency		50 Hz
Extended frequency range		45–55 Hz
AC short circuit fault current over three cycles		5.8 Arms
Maximum units per 20 A (L-N) branch circuit ⁵		11 (single-phase)
Overvoltage class AC port		III
AC port backfeed current		18 mA
Power factor setting		1.0
Power factor (adjustable)		0.8 leading...0.8 lagging
EN 50530 (EU) weighted efficiency		96.5%
MECHANICAL		
Ambient temperature range		–40°C to 60°C
Relative humidity range		4% to 100% (condensing)
Maximum altitude		2,000 m
DC connector type		Bulkhead with MC4 locking type connector
Dimensions (HxWxD)		212 mm x 175 mm x 30.2 mm (without bracket)
Weight		1.08 kg (2.38 lbs)
Cooling		Natural convection—No fans
Approved for wet locations		Yes
Pollution degree		PD3
Enclosure		Class II double-insulated, corrosion-resistant polymeric enclosure
Environmental category/UV exposure rating		Outdoor - IP67
FEATURES		
Communication		Power line communication (PLC)
Monitoring		Enphase Installer Portal and Enphase App monitoring options Compatible with IQ Gateway Metered
Compliance		AS/NZS 4777.2, RCM, IEC/EN 61000-6-3, IEC/EN 62109-1, IEC/EN 62109-2, EN 50549, G98/G99, VDE-AR-N-4105

1. No enforced DC/AC ratio. See the compatibility calculator at <https://enphase.com/en-au/support/module-compatibility>.

2. EU peak power tracking voltage range is 38 V to 43 V.

3. Maximum continuous input DC current is 10.2 A.

4. Voltage range can be extended beyond nominal if required by the utility.

5. Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

Revision history

REVISION	DATE	DESCRIPTION
DSH-00003-1.0	May 2023	Initial release